

Amendments to the Specification:

Please replace paragraph [0011] with the following amended paragraph:

[0011] Figures 3 and 4 are flow charts illustrating the GGSN assigning the RSVP proxy function.

Please replace paragraph [0012] with the following amended paragraph:

[0012] Figures 5 and 6 are flow charts illustrating the PCF assigning the RSVP proxy function.

Please replace paragraph [0016] with the following amended paragraph:

[0016] For a wireless network, the user equipments 31 or users are connected to the multimedia/IP network 33 through a wireless network as shown in Figure 2. Figure 2 shows the essential parts of a wireless network, such as a universal mobile terrestrial system (UMTS) network 30, that are involved in the RSVP operations. As shown, the Call ~~Server~~ State Control Function (CSCF) policy control function (PCF) 32 acts as the policy control point where decisions are made regarding the user services, the handling of media streams and QoS resource issues. The GGSN 34 represents the gateway function, which potentially acts as the RSVP Send/Receive proxy. Also, the GGSN 34 contains all the mobile profile information packet data protocol (PDP) context, and has the resources necessary to carry both signaling and traffic information. The GGSN 34 acts as the controlling authority for all mobile activities. It assigns the IP address and decides, with the serving GPRS support node (SGSN) 36, the potential modes of operation. The RSVP signaling is transparent to both the UMTS terrestrial radio access network (UTRAN) 38 and SGSN 36. The decision point and the associated control logic on

the manner and location of handing the RSVP signaling is preferably located at either the CSCF (PCF) 34 in association with the overall QoS policy control or at the GGSN 34 with other resource control functions. In an alternative embodiment, a dynamic allocation of responsibility of for the RSVP signaling ~~to~~ between the CSCF (PCF) 34 32 and ~~CSCF~~ GGSN 34 is provided since the GGSN 34 is in control of most of the network resources and can detect (or determine) a situation where the wireless network is congested and use this mechanism to alleviate some of the excess traffic.

Please replace paragraph [0018] with the following amended paragraph:

[0018] A flow chart indicating a preferred procedure for the GGSN 34 to assign the RSVP function to the UE 31 is illustrated in Figure 3. After the GGSN 34 determines that the UE 31 will perform the RSVP function, it sends the UE 31 a message indicating that the UE 31 controls the RSVP function via the wireless network, step A1. After the UE 31 receives that message, it sends an acknowledgment message (ACK) to the GGSN 34, step A2. To reserve a path to the destination user, the UE 31 sends a reservation path message (PATH message) to the external network 33 through the wireless network 30, step A3. After the external network 33 receives the PATH message, it reserves those resources for the UE 31 and sends the UE 31 back through the wireless network 30 a RSVP reservation (RESV) message, step A4. After the UE 31 receives the RSVP reservation message, it sends an activate/modified secondary ~~PDP~~ Packet Data Protocol (PDP) context message to the SGSN 36 via the UTRAN 38, step A5. After receiving that message, the SGSN 36 sends a context request message ~~through~~ to the GGSN 34, step A6. In response to receiving the context request message, the GGSN 34 sends a ~~RSVP reservation (RESV)~~ RESV confirmation message to the

external network 33 and a context response message to the SGSN 36, step A7. After the SGSN receives the context response message, it sends an activate/modify secondary PDP context accept message to the UE 31, step A8. After the UE receives the acceptance message, it carries on the ~~proxy~~ RSVP function, step A9.

Please replace paragraph [0020] with the following amended paragraph:

[0020] In an alternate embodiment, although the GGSN 34 makes the ~~proxy~~ RSVP function assignment, the UE 31 may accept or reject the assignment. This procedure allows for negotiation between the UE 31 and GGSN 34. After receiving the message from the GGSN 34 indicating that the UE 31 should perform the RSVP function, the UE 31 responds by accepting or rejecting, such as by an acknowledgment (ACK) or negative acknowledgment (NAK). If the UE 31 rejects the assignment, the UE 31 does not originate any RSVP messages and the GGSN 34 performs the RSVP proxy function.

Please replace paragraph [0021] with the following amended paragraph:

[0021] A flow chart indicating a preferred procedure for the GGSN 34 to assign the RSVP function to itself is illustrated in Figure 4. After the GGSN 34 determines that it will perform the proxy function, it sends the UE 31 a message indicating that the GGSN 34 will control the RSVP function via the wireless network 30, step B1. After the UE 31 receives that message, it sends an acknowledgment message to the GGSN 34, step B2. To reserve a path through the external network 33, the GGSN 34 sends a PATH message to the external network 33, step B3. After the external network 33 receives the PATH message, it reserves path resources and sends the GGSN 34 ~~back through the wireless network 30~~ a RSVP reservation message, step B4. After the GGSN 34 receives the RSVP reservation message, it sends a RSVP

reservation confirmation message to the external network 33. At the same time, it sends a ~~modified~~ modify secondary PDP context message to the SGSN 36, step B5. After the SGSN 36 receives that message, it sends a create/modify secondary PDP context message to the UE 31 via the UTRAN 38, step B6. In response to receiving the message, the UE 31 sends an activate/modify secondary PDP context message to the SGSN 36 and GGSN 34, steps B7 and B8. After receiving that message, the GGSN 34 sends an activate/modify secondary PDP context accept message to the UE 31 and carries on the RSVP function, steps B9 and B10. To maintain the path through the external network, the GGSN 34 periodically sends a refresh path message through the external network 33.

Please replace paragraph [0024] with the following amended paragraph:

[0024] The UE 31 also sends a PATH message to the external network 33, step ~~C6~~ C5. After the external network 33 receives the PATH message, it reserves those resources for the UE 31 and sends the UE 31 back through the wireless network 30 an RSVP reservation message, step C6. After the UE 31 receives the RSVP reservation message, it sends an activate/modify secondary PDP context message to the SGSN 36 via the UTRAN 38, step C7. In response to receiving that message, the SGSN 36 sends a context request message to the GGSN 34, step C8. Subsequently, the GGSN 34 sends an RSVP space reservation confirmation message to the external network 33 and a context response message to the SGSN 36, step C9. After the SGSN 36 receives a context response message, it sends an activate/modify secondary PDP context accept message to the UE 31 via the UTRAN 38, step C10. At that point, the UE 31 carries on the RSVP function, step C11. Periodically, the UE 31 sends refresh messages to the external network 33 to maintain the path through the external network 33.

Please replace paragraph [0028] with the following amended paragraph:

[0028] In another embodiment, the PCF 32 is used in conjunction with the UE policy enforcement so that the PCF 32 assigns the responsibilities to either the UE 31 or the GGSN 34. The PCF in this case sends two orders: one to the GGSN 34 and the second to the UE 31. This prevents a race condition or no transmission from occurring. The wireless network may also be hard coded to only allow either the GGSN 34 or UE 31 to perform the ~~proxy~~ RSVP function. The decision is communicated to the UE 31 during the PDP context activation process.

Please replace paragraph [0031] with the following amended paragraph:

[0031] Initially, the proxy call ~~service~~ state control function (PCSCF)/PCF 32 signals the GGSN 34 to act as the RSVP SEND/RECEIVE proxy, step E1. The GGSN 34 acknowledges, sending an ACK to the PCF 32, step E2. The PCF 32, step E3, communicates to the GGSN 34 that the UE 31 shall not use RSVP signaling. The GGSN 34, step E4, communicates this message to the SGSN 36. The SGSN 36, step E5, communicates this message to the UE 31. The UE 31 acknowledges this ~~responsibility~~ message and, step E6, communicates an ACK to the SGSN 36. The SGSN 36, step E7, communicates the ACK to the GGSN 34. The GGSN 34, step E8, communicates the ACK to the PCF 32.

Please replace paragraph [0032] with the following amended paragraph:

[0032] In Figure 8, the PCF 32, at step F1, communicates to the GGSN 34 that the GGSN 34 shall act as the RSVP SEND/RECEIVE proxy and the UE 31 should be ~~silent~~ not use RSVP. The GGSN 34 initiates an RSVP SEND/RECEIVE proxy for the UE 31 and informs the UE 31 to ~~be silent~~ not use RSVP, step F2. This is

communicated to the SGSN 36, step F3, which, step F4, communicates it to the UE 31.

Please replace paragraph [0037] with the following amended paragraph:

[0037] The UE 31 and GGSN 34 may engage in a negotiation as to who shall take the responsibility for RSVP signaling, for how long and under what circumstances the responsibilities can shift. In Figure 11, the UE 31, at step I1, requests that the GGSN 34 acts as proxy for RSVP Signaling. The GGSN 34, step I2, decides that it will not support the PROXY operation and, step I3, informs the UE 31 to resume responsibility by transmitting a NAK. The UE 31, step I4, transmits an RSVP PATH message to the GGSN 34. The RSVP PATH message is transmitted to the receiving UE, step I5, ~~through~~ to the External Network 33. The ~~receiving UE~~ external network 33 transmits an RSVP RESV ~~through the External Network 33~~ to the GGSN 34, step I6. In turn, the GGSN 34 transmits the RSVP RESV to the UE 31, step I7 and a RSVP RESV confirmation message to the external network, step I10. The UE 31, step I8, transmits an Activate/Modify secondary PDP Context to the SGSN 36. The SGSN 36, step I9 transmits a Context request to the GGSN 34. At step I11, the GGSN 34 transmits a Context Response to the SGSN 36 which sends an Activate/Modify Secondary PDP Context Accept message, step I12, to the UE 31. The UE 31, to maintain the path, transmits, step I13, a refresh message, which is communicated to the GGSN 34. This refresh path message is transmitted by the GGSN 34, step I14, to the External Network 33. The External Network 33, responds to the GGSN 34 with a Refresh RSVP, step I15. The GGSN 34, step I16, transmits this message to the UE 31.

Please replace paragraph [0042] with the following amended paragraph:

[0042] Figure 14 is an arrangement similar to Figure 13 except that the GGSN 34 sends a request to the PCF 32 that the UE 31 should ~~act as the RSVP proxy~~ be responsible for RSVP, step L1. The PCF 32, step L2, makes a decision and assigns the RSVP ~~proxy assignment~~ responsibility to the UE 31, step L3. The PCF 32 further instructs the GGSN 34 that it not act as RSVP proxy, step L4. The UE 31 acknowledges its assignment, step L5, and the GGSN 34 acknowledges its assignment, step L6.

Please replace paragraph [0043] with the following amended paragraph:

[0043] It should be understood that the PCF can make the reverse decisions to those shown in Figures 13 and 14. For example, considering Figure 13, when the UE 31 requests that the GGSN 34 should act as RSVP proxy, the PCF 32 may decide that the UE 31 should ~~act as RSVP proxy~~ be responsible for RSVP anyway. In a similar fashion, making to reference to Figure 14, the PCF 32 in response to a request from the GGSN 34 that the UE 31 should ~~act as RSVP PROXY~~ be responsible for RSVP, may decide that the GGSN 34 act as the RSVP proxy anyway. Since, in Figures 13 and 14, the PCF 32 sends an order to both the UE 31 and GGSN 34, ~~it is unlikely that a race condition or no transmission at all will occur~~ condition will not occur.

Please replace the Abstract with the following new Abstract: